

Amendments to the Claims:

Claims 1, 3 - 5, 8, 11-12, 14, 16 - 18 are being amended to comply with the Examiner's requests and to clarify the claimed embodiments. No new matter is being added. New claims 21 through 25 are added. Claims 1 through 25 remain pending in the present application. This listing of claims will replace all prior versions, and listings, of claims in the application:

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1. (Currently Amended) A method for allowing multiple types of clients to use a database application without hard-coding presentation logic for each of the multiple types of clients into the database application, the method comprising the steps of: prior to providing data from the database application to a particular client, performing the steps of:
- converting the data that is to be transmitted from the database application to the particular client into an XML output without regard to the device type of the particular client; and
- identifying the client device type of the particular client;
- reading metadata selected based on the client device type, wherein the metadata ~~that~~ indicates how to convert said XML output to output for said client device type; and
- based on said metadata, converting the XML output to output for said client device type; and
- providing the output for said client device type to said particular client.

1 2. (Original) The method of Claim 1 wherein:
2 the step of reading metadata includes reading an XSL style sheet associated with said
3 client device type; and
4 the step of converting the XML output includes applying the XSL style sheet to said
5 XML output.

1 3. (Currently Amended) The method of Claim 1 wherein the step of converting the data
2 that is to be transmitted from the database application to the particular client into an
3 XML output includes converting the data based on one or more ~~data~~ document type
4 definition files.

1 4. (Currently Amended) The method of Claim 1 wherein:
2 the particular client is a Telnet client;
3 the Telnet client communicates with a Telnet server to request data from said database
4 application; and
5 the step of providing said output to said particular client includes the steps of
6 sending the output to said Telnet server using a recipient specific format; and
7 said Telnet server providing said output to said Telnet client.

1 5. (Currently Amended) The method of Claim 1 wherein the step of converting the data
2 that is to be transmitted from the database application includes the steps of:
3 identifying a data type to which the data corresponds;

4 identifying a ~~data~~ document type definition associated with said data type; and
5 converting the data to XML output based on said ~~data~~ document type definition.

1 6. (Original) The method of Claim 1 wherein the XML output includes display
2 instruction data indicating that said data is to be displayed in a first manner.

1 7. (Original) The method of Claim 6 wherein the step of converting the XML output
2 includes the step of generating output for said client device type that causes said data
3 to be displayed in a second manner that is different than said first manner when said
4 client device type is not able to display said data in the first manner.

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1 8. (Currently Amended) A method for using a database application with clients that
2 support multiple mark-up language interpreters without hard-coding into the database
3 application logic to support each of the multiple mark-up language interpreters, the
4 method comprising the steps of:
5 converting output of the database application to first data that conforms to a first
6 mark-up language without regard to the type of mark-up language interpreter
7 supported by a client to which the output is to be sent;
8 selecting, based on the type of ~~mark-up language interpreter supported by the client~~ to
9 which the output is to be sent, a second mark-up language that is different than
10 said first mark-up language;
11 converting the first data to second data that conforms to the second mark-up language;
12 and

13 sending the second data to the client.

1 9. (Original) The method of Claim 8 wherein the step of converting the first data to
2 second data is performed by applying an XSL style sheet to said first data.

1 10. (Original) The method of Claim 8 wherein the step of sending the second data to the
2 client includes sending the data to a server to which the client is connected through a
3 wireless connection, and then sending the data from the server to the client over said
4 wireless connection.

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1 11. (Currently Amended) The method of Claim 8 wherein the step of converting output of
2 the database application to first data includes:
3 identifying a data type associated with said output;
4 identifying a data document type definition file associated with said data type; and
5 converting said output to said first data based on rules specified in said data document
6 type definition file.

1 12. (Currently Amended) A system comprising:
2 a database system;
3 a database application operatively coupled to said database system;
4 said database application including:

5 application logic that retrieves data from said database system and uses said
6 data to produce a first output in a format that is not dictated by what
7 type of client device is to receive the output;
8 an XML processor that formats the first output into XML to produce second
9 output that is not dictated by what type of client device is to receive the
10 output; and
11 an XSL processor that converts the second output into a third output based on
12 an XSL style sheet associated with the type of client device that is to
13 receive the output; wherein the XSL style sheet is selected based on the
14 type of client device.

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1 13. (Original) The system of Claim 12 further comprising:
2 a plurality of servers operatively coupled to said database application;
3 said plurality of servers including at least a first server configured to provide services
4 to clients that support a first protocol and a second server configured to
5 provide services to clients that support a second protocol that is different from
6 said first protocol; and
7 a plurality of clients including a first client that interacts with said database
8 application through said first server and a second client that interacts with said
9 database application through said second server.

1 14. (Currently Amended) A computer-readable medium carrying instructions for allowing
2 multiple types of clients to use a database application without hard-coding

3 presentation logic for each of the multiple types of clients into the database
4 application, the instructions including instructions for performing the steps of:
5 prior to providing data from the database application to a particular client, performing
6 the steps of:
7 converting the data that is to be transmitted from the database application to
8 the particular client into an XML output without regard to the device
9 type of the particular client; and
10 identifying the client device type of the particular client;
11 reading metadata selected based on the client device type, wherein the
12 metadata ~~that~~ indicates how to convert said XML output to output for
13 said client device type; and
14 based on said metadata, converting the XML output to output for said client
15 device type; and
16 providing the output for said client device type to said particular client.

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1 15. (Original) The computer-readable medium of Claim 14 wherein:

2 the step of reading metadata includes reading an XSL style sheet associated with said
3 client device type; and
4 the step of converting the XML output includes applying the XSL style sheet to said
5 XML output.

1 16. (Currently Amended) The computer-readable medium of Claim 14 wherein the step of
2 converting the data that is to be transmitted from the database application to the

3 particular client into an XML output includes converting the data based on one or
4 more ~~data~~ document type definition files.

1 17. (Currently Amended) The computer-readable medium of Claim 14 wherein:
2 the particular client is a Telnet client;
3 the Telnet client communicates with a Telnet server to request data from said database
4 application; and
5 the step of providing said output to said particular client includes the steps of
6 sending the output to said Telnet server using a recipient specific format; and
7 said Telnet server providing said output to said Telnet client.

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1 18. (Currently Amended) The computer-readable medium of Claim 14 wherein the step of
2 converting the data that is to be transmitted from the database application includes the
3 steps of:
4 identifying a data type to which the data corresponds;
5 identifying a ~~data~~ document type definition associated with said data type; and
6 converting the data to XML output based on said ~~data~~ document type definition.

1 19. (Original) The computer-readable medium of Claim 14 wherein the XML output
2 includes display instruction data indicating that said data is to be displayed in a first
3 manner.

1 20. (Original) The computer-readable medium of Claim 19 wherein the step of converting

2 the XML output includes the step of generating output for said client device type that
3 causes said data to be displayed in a second manner that is different than said first
4 manner when said client device type is not able to display said data in the first
5 manner.

1 21. (New) The method of claim 4, wherein the recipient specific format comprises telnet
2 markup language (TML).

B3 1 22. (New) The computer readable medium of claim 17, wherein the recipient specific
2 format comprises telnet markup language (TML).

1 23. (New) The method of claim 1, wherein the client device identifier indicates at least
2 one of a dumb terminal, a telnet terminal, a bar code scanner and a browser-less
3 device.

1 24. (New) The system of claim 12, wherein the type of client comprises at least one of a
2 dumb terminal, a telnet terminal, a bar code scanner and a browser-less device.

1 25. (New) The computer readable medium of claim 14, wherein the client device
2 identifier indicates at least one of a dumb terminal, a telnet terminal, a bar code
3 scanner and a browser-less device.
